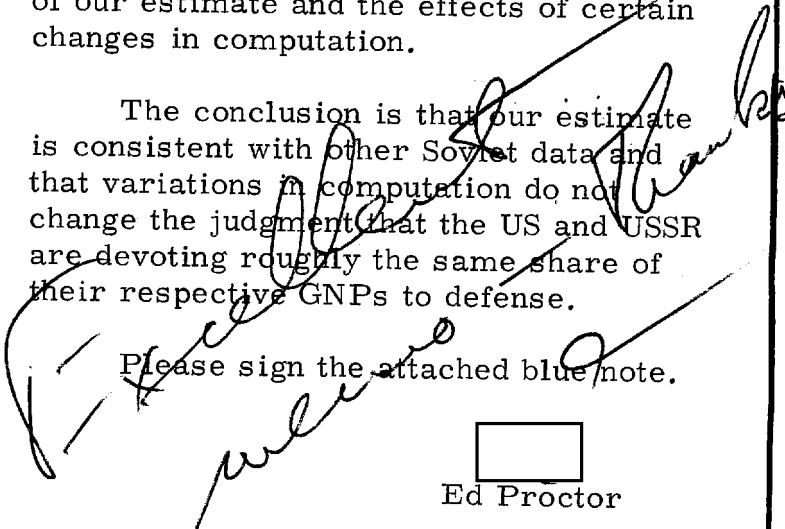


SENDER WILL CHECK CLASSIFICATION TOP AND BOTTOM			
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OFFICIAL ROUTING SLIP <i>ER</i> <i>73-67281</i>			
TO	NAME AND ADDRESS	DATE	INITIALS
1	<i>JRC</i> The Director	<i>10/27</i>	<i>mc/bip</i>
2			
3	<i>DOF / A1001</i>		<i>Comp</i>
4	<i>(colby's note)</i>		
Remarks: <i>5. (file OER)</i> <p>Attached is a memo responding to Schlesinger's request concerning the defense share of Soviet GNP. He suggested that we test the reasonableness of our estimate and the effects of certain changes in computation.</p> <p>The conclusion is that our estimate is consistent with other Soviet data and that variations in computation do not change the judgment that the US and USSR are devoting roughly the same share of their respective GNPs to defense.</p> <p>Please sign the attached blue note.</p> <div style="text-align: right;">  <div style="border: 1px solid black; width: 50px; height: 20px; display: inline-block;"></div> Ed Proctor </div>			
FOLD HERE TO RETURN TO SENDER			
FROM: NAME, ADDRESS AND PHONE NO.			DATE
Deputy Director for Intelligence			25 Oct.
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Form No. 1-67		GPO : 1968 O - 297-542 (40)	

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		Executive Registry
		23-67281
MEMORANDUM FOR:	The Honorable James R. Schlesinger The Secretary of Defense	
Jim--		
<p>In a conversation we had earlier this month on the defense share of Soviet GNP, you asked that we look into this matter further and assess the effects of variations in computation you suggested.</p>		
<p>The attached memorandum, prepared by the Offices of Economic and Strategic Research, responds to your request.</p>		
W. E. Colby Director		27 OCT 1973 (DATE)

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DDI- 468-73

MEMORANDUM

The Share of Defense Spending
in Soviet Gross National Product

1. CIA estimates the share of Soviet defense spending in gross national product (GNP) in 1971 at about 6% in Soviet prices. This estimate includes only direct outlays on defense programs and does not include investment in defense-related sectors of the economy. The US share of defense in GNP was 6.8% in 1971 -- even though Soviet GNP in dollars is only about one-half that of the US while Soviet defense spending in dollars is about equal to US defense spending. This apparent discrepancy and the high priority that military programs enjoy in the USSR have often raised questions about the reasonableness of CIA's estimate of the share of defense spending in Soviet GNP.

2. The CIA estimate of Soviet defense spending follows standard Western accounting practices. The definition of defense spending includes only the actual outlays for men, materials, and equipment; it does not make allowances for possible underpricing in military procurement or for the fact that conscripts are paid much less than they could earn in most alternative employment. Measuring defense spending in this way has the advantage of permitting international comparisons of military expenditures. Nevertheless, defense spending, when limited to actual outlays, does not fully reflect the opportunity costs of the resources used in support of military programs and is therefore an imperfect basis for estimating the economic burden of defense.

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3. This memorandum first tests the CIA estimate of direct expenditures for defense within a national accounting framework. It then compares the share of Soviet defense spending in GNP with the share of defense-related employment in the total labor force. Finally, an attempt is made to expand the definition of defense spending to measure costs to the economy that are not covered in traditional accounting.

4. An independent test of the CIA estimates of Soviet defense spending can be carried out by comparing the major non-defense uses of GNP with total GNP, estimated as the sum of value added by sector of origin.* Estimates of consumption, investment, and administration rely almost entirely on Soviet data that are independent of the data used to reconstruct GNP by sector of origin. These estimates of major end uses can, therefore, be subtracted from total GNP. Conceptually, the residual in GNP includes direct spending on defense and space, civil R&D, net exports, inventory change, and a small statistical discrepancy. The tabulation below shows that this residual was 35.3 billion rubles in 1970, 9.9% of GNP. This figure seems consistent with the independently derived CIA estimate of direct defense spending (21.9 billion rubles) and a reasonable allowance for the other elements in the residual.

* The only element of defense spending included in the sector-of-origin control total is pay and subsistence of personnel employed by the Ministry of Defense.

	1970	
	<u>Billion Rubles</u>	<u>Percent</u>
Total GNP	358.3	100.0
Less: Consumption	213.8*	59.7
Investment (excluding civil R&D)	100.5**	28.0
Administration	8.7	2.4
Equals: Residual	35.3	9.9

5. The share of defense spending in GNP can also be compared with the share of the labor force working directly or indirectly for the Ministry of Defense. The basic defense-related manpower data for the US and the USSR are shown in the tabulation below. Uniformed and civilian employees of the Ministry of Defense constitute about 4% of the Soviet labor force and employees of the Department of Defense come to 4½% of the US labor force. When employment in the defense industries and in defense-related segments of other sectors of the economy is added to direct defense employment, the share of the labor force supporting the military establishment rises to about 7% in both countries, about equal to the shares of defense spending in GNP.

* Includes military subsistence. (The value of subsistence of military personnel is also included in the residual as part of the cost of defense.)

** Investment expenditures are from Soviet data on capital investment and repair which, in our view, do not contain military procurement, although they may contain some military construction. A number of students of Soviet statistics have reached the same conclusion. See, for example, Richard Moorsteen and Raymond Powell, The Soviet Capital Stock, Richard D. Irwin, 1966, p. 38.

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	1971			
	USSR		US*	
	Million Workers	% of All Workers	Million Workers	% of All Workers
Total labor force	126.0	100.0	86.9	100.0
Ministry/Department of Defense	4.9	3.9	3.8	4.4
Uniformed	3.8	3.0	2.7	3.1
Civilian	1.1	0.9	1.1	1.3
Defense-related production workers	4.1	3.3	2.0	2.3
Total defense- related	9.0	7.1	5.8	6.7

6. As noted above, the estimates of direct defense spending can be criticized for not reflecting the real opportunity costs of the resources used in defense programs. If the costs of producing military goods or personnel costs in the USSR are understated, then the defense-related share of GNP is understated. Our evidence indicates that Soviet military production is not subsidized and that military hardware prices are based on costs. Our ruble estimates of military hardware costs are dependent upon ruble-dollar ratios, however, and are no doubt imprecise. We have no reason to believe that the Ministry of Defense does not pay full prices for civilian goods and indeed we use civilian prices to cost the procurement of food, POL, and the like. It is apparent, on the other hand, that military personnel in the Soviet forces are paid less than the value of their potential contribution in other sectors of the economy. As a test of the degree of understatement of their opportunity costs, the services of the military personnel can be valued alternatively according to average earnings in industry or in agriculture in the USSR.

* US Department of Defense, Office of the Comptroller.

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Value of Services of Military Personnel, 1971

(Million Rubles)

<u>At Military Pay/ Subsistence Rates</u>	<u>At the Average Industrial Wage</u>	<u>At Average Earnings of Farm Workers</u>
5,600	7,300	5,600

Valuing the services of military personnel at the average industrial wage would raise the share of defense in GNP by less than 1%. Using average earnings in agriculture does not change the share at all.

7. The reason it makes little difference whether average industrial wages or average earnings in agriculture are taken as a measure of opportunity costs for military labor is that Soviet farmers get high incomes and sell for high prices in spite of their low productivity. Output per farm worker is about 60% of the output per industrial worker in ruble prices but only 20% in dollar prices. For purposes of estimating the economic burden of defense, the ruble prices are the relevant ones. The relatively high wages paid to farm workers reflect the high value attached to coaxing additional output from a stubborn natural and institutional environment.

8. Another possible extension of the defense burden would be to include investment in defense industries and in other industries that support defense production. We can estimate this investment only indirectly. Use of Soviet input-output relationships to calculate direct and indirect investment requirements from an assumed distribution of military final demand suggests that defense-related investment in production facilities may have been as much as 4 billion rubles in 1971. The actual value of investment in defense-related production facilities probably was less than 4 billion rubles; investment should reflect changes in the need for production

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capacity, and the growth of military procurement has slowed noticeably in recent years. Enlarging the definition of defense spending by the entire 4 billion rubles would raise the share of defense in Soviet GNP to about 7.0%. Comparable figures for defense-related investment in the US are not available but probably would change the share of defense in US GNP by the same or smaller amount.

9. In sum, CIA estimates of Soviet direct spending on defense -- 21.9 billion rubles in 1970 -- fit within an independently-derived national accounting framework. The share of Soviet GNP devoted to direct defense spending also squares with the share of military manpower and defense-related production workers in the total labor force. Moreover, rough estimates of the opportunity costs that are not measured in traditional statements of military expenditures suggest that appropriate adjustments would increase the share of direct defense spending in Soviet GNP by less than 1%. Finally, expanding the concept of defense spending beyond that used in conventional western national income accounting practice to include investment expenditures supporting defense production increases the defense share of Soviet GNP in 1971 from 6% to 7.0% (or to 7.5% if the services of military personnel are priced at an estimated opportunity cost). Comparable data are not available for the US, but adding defense-related investment to direct US defense spending probably would not alter the present judgment that the US and USSR devote roughly the same share of their respective GNPs to defense.